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| 09/484,098      | 01/18/2000  | Albert D. Baker      | 19-3                | 9279             |

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| EXAMINER |
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TODD, GREGORY G

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| ART UNIT | PAPER NUMBER |
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2157

DATE MAILED: 12/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/484,098

Applicant(s)

BAKER ET AL.

Examiner

Gregory G Todd

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Appeal Brief***

This is a third office action in response to applicant's appeal brief filed, 11 October 2003, of application filed, with the above serial number, on 18 January 2000 in which claims 1-21 are pending in the application.

1. In view of the Appeal Brief filed on 08 October 2003, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1 and 11 and 21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter

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which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. RFC 1597 explicitly declares a local intranet as using particular blocks of addresses only (see page 3); thus the claims, nor the disclosure, disclose how to enable applicants invention in that given devices in the network are randomly assigning addresses to other devices, based on global IP addresses without any cross-referencing with a DHCP server or the like as to IP address allocation within the network. Further, LAN IP addresses within the network can only be assigned within a given block of *Intranet* addresses, RFC 1597, and not global *Internet* addresses.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 5-13, and 15-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aravamudan et al (hereinafter "Aravamudan", 6,006,272) in view of Yanagidate et al (hereinafter "Yanagidate", 6,128,664).

6. As per Claims 1,11 and 21, Aravamudan discloses an apparatus, a method, and a machine-readable medium storing one or more programs for use in interfacing a local network to one or more external network elements, wherein Aravamudan discloses:

a gateway coupled between the local network and the one or more external network elements, the gateway being operative to determine remotely-assigned address information for a given device attached to the local network (configured address identical to router) (at least col. 2 line 60 - col. 3 line 6);

establish a substitution address for use by at least one other device attached to the local network when communicating with the given device (logical address for intranet communications) (at least col. 3 line 50 - col. 4 line 33).

Aravamudan fails to explicitly disclose the substitution address based in part by the remotely assigned address information. However, the use and advantages for using such a protocol is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of Yanagidate. Yanagidate discloses a private address correlation with a global address (at least col. 5 line 38 - col. 6 line 25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of Yanagidate's address correlation into Aravamudan's system as this would further enhance Aravamudan's system to limit communication between devices on the home network to stay behind the router, gateway and forward the packets directly to the other device on the home network according to the logical address assigned to the device (see Aravamudan Fig 2, Background).

7. As per Claims 2 and 12.

the remotely-assigned address information comprises an Internet protocol (IP) address assigned to the at least one device by an external network element (at least col. 1, lines 25-46).

8. As per Claims 3 and 13.

the local network comprises a local area network (LAN / Intranet) (at least Fig. 2, col. 1, lines 30-34).

9. As per Claims 5 and 15.

the gateway stores remotely-assigned address information for each of a plurality of devices attached to the local network (configured address same as router) (at least col. 2 line 60 - col. 3 line 15).

10. As per Claims 6 and 16.

the gateway stores a set of address substitution information for each of the plurality of devices, the set of address substitution information for a given one of the devices comprising an address to be used by the given device in communicating with the gateway, and addresses to be used by the given device in communicating with each of the other devices (logical addresses for each device connected to the LAN) (at least Fig. 3; col. 4 line 62 - col. 5 line 15)

11. As per Claims 7 and 17.

the stored information comprises an address substitution matrix having a row of address information for each of the plurality of devices attached to the local network (at least Fig. 3).

12. As per Claims 8 and 18.

a given one of the sets of address substitution information for a particular one of the plurality of devices comprises a set of IP addresses, each of which is sub-network compatible with an IP address remotely assigned to the corresponding device, such that

communications between the given device and another one of the devices attached to the local network are not routed through an external network element (router having configured address with communication among home devices using logical addressing) (at least Fig. 2; col. 3 line 42 - col. 4 line 33).

13. As per Claims 9 and 19.

the gateway processes a particular received packet in order to replace remotely-assigned address information in a header thereof with a corresponding substitution address determined by the gateway (forwarding packet according to default profile specifying destination address replacement) (at least Fig. 4).

14. As per Claims 10 and 20.

the gateway intercepts at least one of control information and maintenance information received over the local network and associated with the given device so as to perform related services on behalf of the given device (responding to broadcast packet determining future broadcasts) (at least Fig. 4).

15. Claims 4 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aravamudan in view of Yanagidate (hereinafter "the combination") and further in view of Foley (hereinafter "Foley", 6,414,952).

16. The combination does not explicitly disclose the gateway comprising an ADSL termination unit-receive device (ADSL modem). However, the use and advantages for using such a modem is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of Foley (at least Foley col. 16, lines 42-55).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of specifically an ADSL modem in the combination's gateway because this would expand the compatibility of the modems used in the gateway (at least col. 4, lines 17-25; col. 7, lines 48-52) with ADSL services.

17. As per Claims 1, 11, and 21, Aravamudan discloses an apparatus, a method, and a machine-readable medium storing one or more programs for use in interfacing a local network to one or more external network elements, wherein Aravamudan discloses:

a gateway coupled between the local network and the one or more external network elements, the gateway being operative to determine remotely-assigned address information for a given device attached to the local network (MAC address remotely assigned by manufacturer identification by router) (at least col. 5, lines 41-52);

establish a substitution address for use by at least one other device attached to the local network when communicating with the given device (logical address for intranet communications) (at least col. 3 line 50 - col. 4 line 33).

Aravamudan fails to explicitly disclose the substitution address based in part by the remotely assigned address information. However, the use and advantages for using such a protocol is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of Yanagidate. Yanagidate discloses a private address correlation with a global address (at least col. 5 line 38 - col. 6 line 25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was



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made to incorporate the use of Yanagidate's address correlation into Aravamudan's system as this would further enhance Aravamudan's system to limit communication between devices on the home network to stay behind the router, gateway and forward the packets directly to the other device on the home network according to the logical address assigned to the device (see Aravamudan Fig 2, Background).

### ***Response to Arguments***

18. Applicant's arguments, see pages 4-9, filed 08 October 2003, with respect to the rejection(s) of claim(s) 1-21 under 35 U.S.C. 102 (e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Aravamudan in view of Yanagidate.

### ***Conclusion***

19. Newly cited RFC 1597, Kracht, Gervais et al, Akatsu et al, Nonaka et al, and Hong et al in addition to previously cited Zisapel et al, Subramaniam et al, Howes et al, Millet et al, and Weiman as well as newly cited Nonaka et al (packet substitution gateways) and Datta et al (multiple routers controllable by address configuring gateway) are cited for disclosing pertinent information related to the claimed invention. Applicants are requested to consider the prior art reference for relevant teachings when responding to this office action.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory G Todd whose telephone number is (703)305-5343. The examiner can normally be reached on Monday - Friday 9:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (703)308-7562. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Gregory Todd



Patent Examiner

Technology Center 2100



ARIO ETIENNE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100